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## TECH CENTER 1600/2900



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#18

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/251,638B

DATE: 11/13/2002 TIME: 13:49:23

Input Set : A:\EP.txt

Output Set: N:\CRF4\11132002\I251638B.raw

```
3 <110> APPLICANT: DANIELL, HENRY
 5 <120> TITLE OF INVENTION: GENETIC ENGINEERING OF COTTON TO INCREASE FIBER
         STRENGTH, WATER ABSORPTION AND DYE BINDING
 8 <130> FILE REFERENCE: 1483-R-00
10 <140> CURRENT APPLICATION NUMBER: 09/251,638B
11 <141> CURRENT FILING DATE: 1999-02-17
13 <150> PRIOR APPLICATION NUMBER: 60/074,997
14 <151> PRIOR FILING DATE: 1998-02-17
16 <160> NUMBER OF SEQ ID NOS: 5
                                                          ENTERED
18 <170> SOFTWARE: PatentIn Ver. 2.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 5
22 <212> TYPE: PRT
23 <213> ORGANISM: Artificial Sequence
25 <220> FEATURE:
26 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
        peptide
29. <400> SEQUENCE: 1
30 Val Pro Gly Val Gly
34 <210> SEO ID NO: 2
35 <211> LENGTH: 5
36 <212> TYPE: PRT
37 <213> ORGANISM: Artificial Sequence
39 <220> FEATURE:
40 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
        peptide
43 <400> SEQUENCE: 2
44 Gly Val Gly Val Pro
45 1
48 <210> SEQ ID NO: 3
49 <211> LENGTH: 605
50 <212> TYPE: PRT
51 <213> ORGANISM: Artificial Sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
        peptide
57 <400> SEQUENCE: 3
58 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                                        10
61 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
```

64 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly

Input Set : A:\EP.txt

65			35					40					45			
	Val	Pro		Val	Glv	Val	Pro		Val	Glv	Val	Pro		Val	Glv	Val
68		50	1		1		55	1		1		60	1		U-1	
70	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Glv	Val	Pro
71	65	_		_		70			- 4		75	2				80
73	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly
74	•		-		85	-		-		90	-		-		95	-
76	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val
77		_		100	_		_		105	-		_		110	-	
79	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly
80			115					120					125			
82	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val
83		130					135					140				
85	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro
86	145					150					155					160
88	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly
89					165					170					175	
	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val
92				180					185					190		
94	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly
95			195					200					205			
97	Val	Pro	Gly	Val	Gly			Gly	Val	Gly	Val		Gly	Val	Gly	Val
98		210					215					220				
			/ Val	l Gly	/ Val		_	, Val	. Gl	/ Val		_	v Val	. Gl	/ Val	Pro
	. 225					230				_	235				_	240
		v Val	. Gl	/ Val			Val	. Gly	/ Val			Val	. Gly	v Val		Gly
104				_	245				_	250				_	255	
		. GTZ	/ Val		_	, va⊥	Gly	, val		_	, val	. GIY	val		_	/ Val
107		. 17. 1	D	260		C1	. 17 7	D	265		C1.		D	270		C1
110	_	val	. Pro 275	_	val	. сту	vai	. Pro		/ vai	. Сту	vai	. Pro	_	/ val	. Gly
		Dxc		•	C1.	. 17-1	Dro			C1,		D×c			C1.	/ Val
113		290	_	/ Vai	. Сту	val	295	_	/ val	. сту	val	300	-	val	. Gr)	/ Val
				G1,	, Wal	Dro			G1s	, Wal	Dro			G1,	, Ual	Pro
	305	_	, vai	. Сту	val	310	_	vaı	. 61)	, vai	315	_	val	. Gij	, vai	320
			G1s	, Val	Pro			Glv	, Val	Pro			Gly	, Val	Pro	Gly
119	_	Val	. 013	, vai	325	_	Vai	. Ory	vas	330	_	Val	. Ory	۲۵۱	335	_
		Glv	. Val	Pro			Glv	, Val	Pro			Glv	. Val	Pro		, Val
122		. 01)	, , ,	340	-	V 44 1	O <sub>1</sub>	,	345	-	val	O ± y	• • • •	350	-	· ··
		. Val	Pro			Glv	Val	Pro			Glv	Val	Pro			Gly
125	_		355	_		. 011		360	_				365	_		. 011
		Pro			G1 v	Val	Pro			Glv	v Val	Pro			Glv	v Val
128		370	_				375	_				380	_			
				. Glv	. Val	Pro			Glv	/ Val	Pro			Glv	, Val	Pro
	385			1		390	_		1		395	_				400
			. Glv	, Val	Pro			Glv	, Val	. Pro			Glv	. Val	Pro	Gly
134					405	_				410	_		- 4		415	_
		Gly	, Val	Pro	Gly	Val	Gly	Val	Pro	Gly	, Val	Gly	Val	Pro	Gly	v Val
137		-		420	_		_		425	_		-		430	_	

Input Set : A:\EP.txt

```
139 Gly Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly
           435
                               440
142 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
                           455
145 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
148 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                   485
                                       490
151 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
               500
                                   505
154 Gly Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly
           515
                               520
157 Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly Val
    530
                           535
160 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
                       550
                                           555
163 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                                       570
                   565
166 Val Gly Val Pro Gly Val Gly Val Gly Val Pro Gly Val
169 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
           595
                               600
170
173 <210> SEQ ID NO: 4
174 <211> LENGTH: 100
175 <212> TYPE: PRT
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
         peptide
182 <400> SEQUENCE: 4
183 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
186 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
189 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
            35
192 Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly Val
                            55
195 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Pro
198 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
199
                                        90
201 Val Gly Val Pro
202
               100
206 <210> SEQ ID NO: 5
207 <211> LENGTH: 605
208 <212> TYPE: PRT
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
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Input Set : A:\EP.txt

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212 <221> NAME/KEY: repeat unit
213 <222> LOCATION: 1..605
214 <223> OTHER INFORMATION: Repeats at least once
216 <220> FEATURE:
217 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
218
         peptide
220 <400> SEQUENCE: 5
221 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
224 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
               20
                                    2.5
227 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
230 Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly Val
                           5.5
233 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
                       70
236 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
239 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
242 Gly Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly
    115
                              120
245 Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly Val
                          135
248 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
                      150
249 145
                                           155
251 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                  165
                                       170
254 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
              180
                                  185
257 Gly Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly
                               200
260 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
                           215
263 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
                       230
                                           235
266 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                  245
                                       250
269 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
              260
                                   265
272 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
                               280
           275
275 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
                           295
278 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
                       310
                                           315
281 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
282
                   325
                                       330
```

Input Set : A:\EP.txt

284 285	Val	Gly	Val	Pro 340	Gly	Val	Gly	Val	Pro 345	Gly	Val	Gly	Val	Pro 350	Gly	Val
287 288	Gly	Val	Pro 355	Gly	Val	Gly	Val	Pro 360	Gly	Val	Gly	Val	Pro 365	Gly	Val	Gly
290 291	Val	Pro 370	Gly	Val	Gly	Val	Pro 375	Gly	Val	Gly	Val	Pro 380	Gly	Val	Gly	Val
293 294		Gly	Val	Gly	Val	Pro 390	Gly	Val	Gly	Val	Pro 395	Gly	Val	Gly	Val	Pro 400
296 297	Gly	Val	Gly	Val	Pro 405	Gly	Val	Gly	Val	Pro 410	Gly	Val	Gly	Val	Pro 415	Gly
299 300	Val	Gly	Val	Pro 420	Gly	Val	Gly	Val	Pro 425	Gly	Val	Gly	Val	Pro 430	Gly	Val
302 303	Gly	Val	Pro 435	Gly	Val	Gly	Val	Pro 440	Gly	Val	Gly	Val	Pro 445	Gly	Val	Gly
305 306	Val	Pro 450	Gly	Val	Gly	Val	Pro 455	Gly	Val	Gly	Val	Pro 460	Gly	Val	Gly	Val
308 309		Gly	Val	Gly	Val	Pro 470	Gly	Val	Gly	Val	Pro 475	Gly	Val	Gly	Val	Pro 480
311 312	Gly	Val	Gly	Val	Pro 485	Gly	Val	Gly	Val	Pro 490	Gly	Val	Gly	Val	Pro 495	Gly
314 315	Val	Gly	Val	Pro 500	Gly	Val	Gly	Val	Pro 505	Gly	Val	Gly	Val	Pro 510	Gly	Val
317 318	Gly	Val	Pro 515	Gly	Val	Gly	Val	Pro 520	Gly	Val	Gly	Val	Pro 525	Gly	Val	Gly
320 321	Val	Pro 530	Gly	Val	Gly	Val	Pro 535	Gly	Val	Gly	Val	Pro 540	Gly	Val	Gly	Val
323 324	Pro 545	Gly	Val	Gly	Val	Pro 550	Gly	Val	Gly	Val	Pro 555	Gly	Val	Gly	Val	Pro 560
326 327	Gly	Val	Gly	Val	Pro 565	Gly	Val	Gly	Val	Pro 570	Gly	Val	Gly	Val	Pro 575	Gly
329 °		_		580	_				585	_		_		Pro 590	Gly	Val
332 ( 333	Gly	Val	Pro 595	Gly	Val	Gly	Val	Pro 600	Gly	Val	Gly	Val	Pro 605			

VERIFICATION SUMMARY

DATE: 11/13/2002

PATENT APPLICATION: US/09/251,638B

TIME: 13:49:24

Input Set : A:\EP.txt